

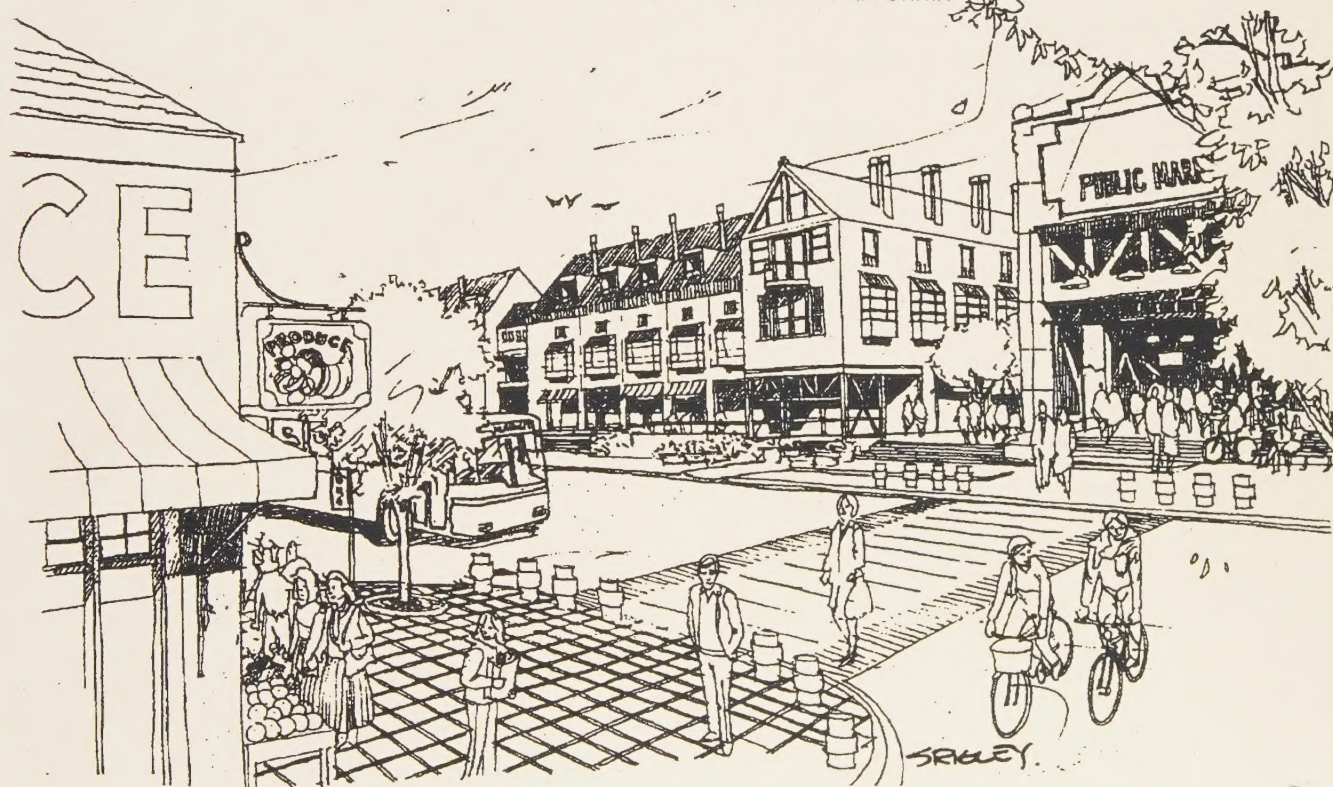
# Getting On the Right Track

TRANSPORTATION CHOICES FOR THE BAY AREA

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A Report by the Bay Area Transportation Choices Forum  
November, 1997

*Getting On The Right Track* was prepared by Stuart Cohen, Associate Director, and John Woodbury, Program Director, of the Bay Area Transportation Choices Forum.

Many members of the Steering Committee, whose names are listed below, deserve special thanks for providing feedback and suggestions throughout the production of this report. Their collective insight and analysis were critical in keeping the report concise, and accessible to a broad audience. Stephen Wheeler deserves special thanks for his extensive contributions to chapter four. Marcus Kryshka provided critical formatting, graphics and editing assistance.

Additional copies of *On The Right Track* can be obtained by calling the Bay Area Transportation Choices Forum at (510)843-3878 or the Greenbelt Alliance at (415)543-4291.

Cover Illustration: Mr. Calum Srigley

### About the Bay Area Transportation Choices Forum

Bay Area Transportation Choices Forum is a cooperative project of community groups and public agencies interested in expanding public participation in regional transportation and land use decisions. Initial funding has been provided by the Environmental Protection Agency and the Switzer Foundation. Members of the Bay Area Transportation Choices Forum Steering Committee are:

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## Introduction

**S***cenic beyond description, economically vibrant, environmentally gifted, ethnically rich – these words capture the still-incomparable San Francisco Bay Area in the waning years of the 20<sup>th</sup> Century. Whether they will continue to apply in the 21<sup>st</sup> century depends on a complex mix of forces, some of a national or even global scale, other regional in scope. It is the regional forces – travel, growth and development patterns, in particular – that the Metropolitan Transportation Commission (MTC) is attempting to address through the 20-year Regional Transportation Plan (RTP) for the Bay Area.*

### **-From the 1994 Regional Transportation Plan**

The primary goal of the Bay Area Transportation Choices Forum is to engage the broader public on the issues of transportation and land use, with an initial focus on the 1998 update of the Regional Transportation Plan (RTP). If there is a single document that will shape the future of the Bay Area, it is the RTP. The RTP is the “blueprint” that helps define how \$74 billion in transportation funding will be spent over the next 20 years.

Despite the RTPs importance, public input has been minimal in the past. The sheer complexity of the RTP has been enough to keep away most members of the general public. Yet greater involvement is badly needed, for the “snapshot” of the Bay Area in 20 years presented by the RTP is one which many current residents may not find appealing.


The major challenges now facing the Bay Area – environmental quality, economic development and social equity – are closely linked to transportation and land use decisions. A regional vision with clearly articulated goals and objectives is more important than ever if we hope to effectively confront these challenges.

This report describes what our region may be like if we continue business as usual, then explores some of the myths and misunderstandings that may keep us from rising to the challenges. The report also makes several recommendations for changing our transportation priorities and development patterns. Only with greater public debate and understanding will we be able to take the bold steps needed to address our biggest challenges, and ensure the highest possible quality of life in the Bay Area.

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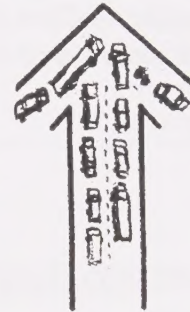
# Chapter One: Bay Area Transportation Through the Year 2015

**S**ome \$74 billion is projected to flow to transportation programs and projects in the Bay Area in the next 20 years, as outlined in the Regional Transportation Plan. Where will this investment, combined with other trends, leave us in the year 2015?

## More Congestion

Since 1980, delays on our highways have increased by 350%.<sup>1</sup> Traffic congestion is expected to grow worse as we approach 2015, even with the \$74 billion investment.<sup>2</sup> It's no wonder traffic is considered the #1 problem in the Bay Area.<sup>3</sup>

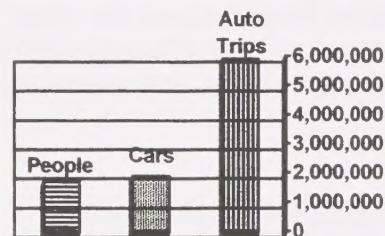
**Congestion  
Up 350%  
Since 1980,  
And Rising!**



## More People, Even More Cars

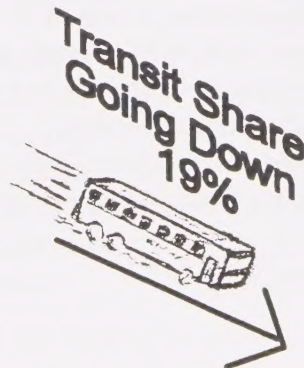
In 1990, just over 6,000,000 people lived in the Bay Area. By 2015, another 1,700,000 are expected to live here, a 28% increase.<sup>4</sup> The number of cars is expected to grow by an even greater amount, by more than 1,870,000, or 47%, during that period.<sup>5</sup> Daily auto trips are expected to increase by 5.9 million, or 37%.<sup>6</sup>

**Projected Growth: 1990 - 2015**



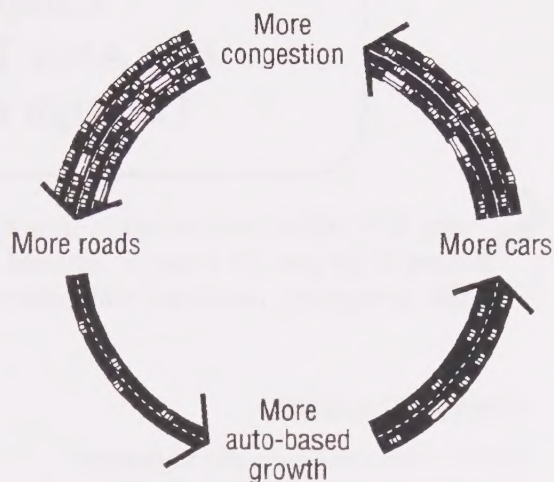
## Declining Role of Transit

Public transit provided 6.9 percent of all trips in 1990 but is only expected to account for 5.6 percent of all trips by the year 2015, according to the 1996 Regional Transportation Plan. This represents a 19% decline.



## More Highways, More Driving

667 miles of new roads will be added over the next twenty years.<sup>7</sup> Yet numerous studies as well as experience indicate that these lanes will *quickly be filled* by attracting drivers from alternate roads or from transit, by facilitating households to move outward from existing urban centers and inner suburbs, and by a host of demographic changes.<sup>8</sup> By 2015 an additional 34 million miles of vehicle travel are anticipated *each day!*<sup>9</sup>



By Steve Price  
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## Deteriorating Roads

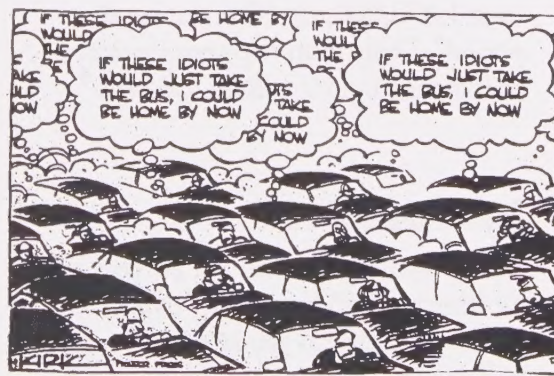
The Regional Transportation Plan focuses flexible regional funding on longer distance and commute trips.<sup>10</sup> At the same time there is a large shortfall for maintaining local streets and roads. Urban areas with older infrastructures are often the hardest hit.

### **Funding Shortfalls for Local Streets and Roads<sup>11</sup>**

Pavement Maintenance	\$1,565 million
Non-Pavement Items (e.g. sidewalks, street lights)	\$2,002 million
Bridge/Seismic Upgrades	<u>\$326 million</u>
<b>TOTAL</b>	<b>\$3,893 million</b>

## Less Transit, More Breakdowns

A number of transit operators are underfunded, and will not be able to maintain their systems or replace capital equipment such as buses or rails as is needed.<sup>12</sup> Some, such as AC Transit and County Connection, have already had to cut service. Unless transit funding is increased, more service cuts and less reliable service are likely in many parts of the Bay Area.





## RTP May Reduce Urban Transit Ridership

Under the 1996 Regional Transportation Plan (RTP), major investments are proposed for highway expansions and suburban BART extensions, while cutbacks are assumed for many bus services. In fact, MTC projects that MUNI and AC Transit would have more ridership *without* the RTP investment program than with it. Ridership gains for the rail expansion program are largely offset by ridership losses for many bus services, resulting in the regional decline in market share for public transit.

<b>Projected Daily Transit Boardings</b>			
<u>Transit Operator</u>	<u>1990 (actual)</u>	<u>2015 with RTP</u>	<u>2015 without RTP</u>
MUNI	756,200	706,800	727,100
AC Transit	222,300	214,200	216,200
BART <sup>13</sup>	249,800	363,700	336,600

## Less Transit Access to Jobs

In the 1980s, 90% of job growth in the Bay Area was outside of the urban core.<sup>14</sup> This trend is expected to continue through 2015<sup>15</sup>. Public transit systems can not efficiently serve the dispersed employment centers being developed in these areas, hurting those who rely on transit and worsening traffic congestion.<sup>16</sup>

## Less Open Space

Over the next twenty years, approximately 180,000 acres of open space – an area six times as large as the entire City of San Francisco – are expected to be developed in the Bay Area.<sup>17</sup>

## Particulate Emissions Increase

In the past few years, technology has reduced emissions from new motor vehicles. Yet, some emissions cannot be controlled by technology and will continue to increase as the region drives more. The most harmful of these are fine particles (known as PM<sub>10</sub>) that get inhaled and lodged in the lungs.<sup>18</sup>

Without a reduction in motor vehicle travel, the state standard for PM<sub>10</sub> will not be met.<sup>19</sup> Motor vehicle emissions of carbon dioxide, a primary contributor to global warming, are also increasing.<sup>20</sup>

### Potential Bay Area Benefits Over 20 years<sup>21</sup> of Achieving the State Standard for PM<sub>10</sub>

<u>Health Effect</u>	<u>Reduction in Number of Cases</u>
Deaths	8,303
Influenza	232,372
Pneumonia	72,360
Acute Bronchitis	197,424
Chronic Bronchitis	220,320
Emphysema	25,920
Asthma	208,008



## ENDNOTES

- <sup>1</sup> Caltrans, *Highway Congestion Monitoring Report*, 1996.
- <sup>2</sup> MTC, *1996 Regional Transportation Plan, Draft Supplemental Environmental Impact Report*.
- <sup>3</sup> Bay Area Council, *1996 Bay Area Poll*.
- <sup>4</sup> ABAG, *Projections '96*.
- <sup>5</sup> MTC, *1996 RTP update, Air Quality Conformity Analysis*.
- <sup>6</sup> Ibid.
- <sup>7</sup> MTC, *1996 RTP update, Air Quality Conformity Analysis*. Table A-7. The Regional Transportation Plan Air Quality Conformity Analysis (1996) refers to these roads as Highway Network Lane-Miles. The 667 new miles include 183 additional freeway miles, 192 additional HOV miles, and 292 additional miles under the category "other."
- <sup>8</sup> MTC, *1994 RTP Final Environmental Impact Report Addendum*, June 1994. P. 38 notes these demographic changes. The concept of induced demand for driving has been demonstrated in numerous studies. For example, Marc Hansen found that in congested regions such as the Bay Area, each additional lane-mile generates approximately 12,000 new vehicle miles of travel per day (after being open for a few years). He also found that some of these miles had previously been traveled on county and local roads. There is not necessarily a reduction in congestion on these local and county roads, however, since these roads are generally used for getting to and from the highway. In Marc Hansen, *Do New Highways Generate Traffic?*, Access, Number 7, 1995.
- <sup>9</sup> MTC, *1996 RTP update, Air Quality Conformity Analysis, Table A.2*.
- <sup>10</sup> The "Metropolitan Transportation System" or MTS is the focus of MTC's planning and investment activities. It includes highways, major arterials, transit service, rail lines, seaports airports, and transfer hubs. Although some short-distance trips do take place on the MTS, using the MTS as a guide takes the focus away from the local level and places it on longer distance travel.
- <sup>11</sup> MTC, *Track 2: A Plan for funding Advocacy for the San Francisco Bay Area, Draft*, July, 1997.
- <sup>12</sup> MTC, *Track 2: A Plan for funding Advocacy for the San Francisco Bay Area, Draft*, March, 1997
- <sup>13</sup> Does not include BART buses.
- <sup>14</sup> The urban core is defined by MTC as San Francisco, Berkeley and Oakland (specifically, MTC superdistricts #1 – #4, #18, #19). From MTC, *Bay Area Travel and Mobility Characteristics, 1990 Census: Working Paper #2, August, 1992*. P. 18.
- <sup>15</sup> For example, of the nearly 1,000,000 jobs that are expected to be added to the Bay Area between 1990 and 2015, only 8% of them are expected to be in San Francisco. From ABAG, *Projections '96*.
- <sup>16</sup> Applied Research Project, *Deliberate Disadvantage*, Oakland, CA: 1996.
- <sup>17</sup> Personal communication with ABAG staff, June 30, 1997. Estimates are extrapolated from the period of 1990-2010. During this time residential developed acreage is expected to increase by 145,958 acres (595,426 minus 449,468) and commercial/industrial will increase by 32,338 (225,00 minus 190,162).
- <sup>18</sup> Most fine particles emissions occur as cars kick up particles that already are on roadways. This is known as "reentrained road dust." It is possible to make minor improvements in diesel engine emissions of particulate matter. On an average per capita basis, Bay Area residents are exposed to concentrations above the 24-hour state standard on about 45 days annually. BAAQMD, *The economic value of quantifiable ozone and PM10 related health effects in the San Francisco Bay Area*, October, 1994.
- <sup>19</sup> The level of vehicle mile reduction needed to meet PM10 standards has not been quantified at this time and the state is not enforcing its standard.
- <sup>20</sup> BAAQMD, *Bay Area '94 Clean Air Plan: Volume 1*, December 21, 1994.
- <sup>21</sup> Potential benefits assume a conservative estimate of 6.6 million average population during the next 20 years. The health benefit for each illness is extrapolated from figures in BAAQMD's, *The economic value of quantifiable ozone and PM10 related health effects in the San Francisco Bay Area*, October, 1994.



## Chapter Two: The \$74 Billion Questions

**H**ow we spend our transportation dollars over the next twenty years, combined with how we build communities, will have a powerful and irrevocable impact on the Bay Area. The choices and their impacts are not always obvious or easy. A question and answer format is used to explore some of the primary issues.

### **Question 1: Can't we just build more roads to relieve congestion?**

#### We don't have the money or community commitment.

Caltrans estimated it would have to widen major highways up to 24 lanes, just to maintain the level of service that existed a few years ago.<sup>1</sup> Such highway expansion isn't realistic, either in terms of what we can afford or what local communities would accept.

#### We can't even maintain what we have.

There is barely enough money to maintain existing freeways, and the maintenance backlog for local streets has been steadily rising. Without new funding sources, adding new highway capacity would mean either higher taxes, or even more potholes in local streets.<sup>2</sup>

#### Improving highways in one location often just moves bottlenecks to another location.

For example, the new Cypress Freeway, the most expensive piece of road ever built in California, may just shift congestion a few miles down the road. According to one MTC official, "...it will help the bottleneck somewhat at the maze, but that traffic will have to go somewhere once it gets through that bottleneck better. It may lead to additional congestion at the Bay Bridge toll plaza."<sup>3</sup>

#### In any case, most new roads quickly become congested.

When lanes are added more people start using the highway, and in many situations congestion levels return to what they were





just a few years back. A recent study estimated that in the Bay Area a ten percent increase in highway miles led to a nine percent increase in miles driven within just five years.

## **Question #2. Isn't a car often the only realistic choice for getting around?**

Yes. This is particularly true in new subdivisions.

The design of modern subdivisions makes transit extremely inefficient, and walking and cycling difficult, dangerous and sometimes impossible. These design characteristics include:

- Looping, indirect street layouts make trips unnecessarily long.
- Nonexistent or incomplete sidewalks create hazards for pedestrians.
- Repetitive streetscapes, often with garage doors lining the streets, makes walking uninviting.
- Long distances between homes and activity centers necessitates a car for just about every trip.
- Few houses per acre (low densities) makes it difficult and expensive to serve with transit.

## When we design communities for better and safer walking, cycling and transit, people actually have choices.

Designing communities the “old-fashioned way” – with sidewalks, narrow tree-lined streets, shops and activities within strolling distance – has strong market appeal and reduces overall vehicle travel. For example, Rockridge residents are five times more likely to get to work without using a car than Lafayette residents.<sup>4</sup>

## Most trips are local, and good land use has the greatest impact on local trips.

Although commuter gridlock grabs the headlines, less than one out of four trips are between home and work. Most trips we make are local -- to school, shopping, a restaurant, or a friend's house. Largely due to these trips, Americans, on average, now spend over an hour in their cars each day.<sup>5</sup>



*Communities such as this one are inviting to approach by any mode of transportation*



### **Question 3: Most people love to drive, so does it really matter how we design our communities?**

Yes. There are striking differences between communities in how much people need to drive.

Residents of low density suburbs drive far more than people in traditional urban neighborhoods. For example, San Ramon residents on average drive *almost 4 times as much* as residents of Northeast San Francisco (See Figure 2-1—next page).

Additionally, over 31% of Bay Area residents can't drive, and for these people having choices means a higher quality of life.

In 1996, over 2,000,000 Bay Area residents did not own driver's licenses.<sup>6</sup> Moreover, over 400,000 residents did not have access to a car.<sup>7</sup> Auto-oriented development makes it difficult for these residents – most of them seniors, children, low-income or disabled people – to get to jobs, medical care and other activity centers.

With different development patterns everyone could save time and money.

Every Bay Area resident has something to gain when we plan growth better: less congestion, better air quality, less time in traffic and less money spent on auto travel. When MTC modeled a scenario that assumed new growth would be more compact and located near good public transit, and that people who did not drive would receive the same subsidy as the person who got a “free” parking space from their employer (referred to as “parking cashout”), the average Bay Area resident saved 42 hours per year in travel time and the average household saved \$379 per year on vehicle expenses.<sup>8</sup>

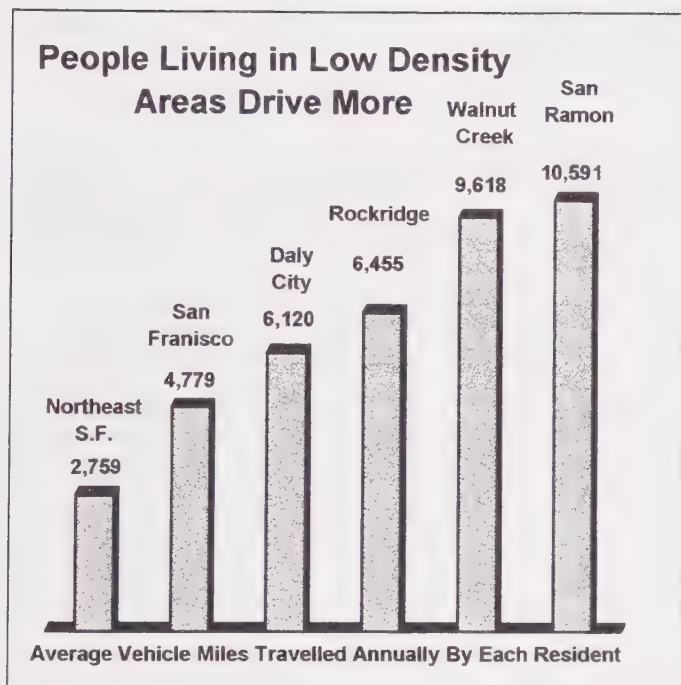


Figure 2-1

The greater amount of driving typical in low density development, as seen in this graph, can also be expensive. Average vehicle expenses, (in 1991 dollars) for a 2.3 person household in N.E. San Francisco were estimated at \$2226. The same household in San Ramon would have spent closer to \$7096. San Francisco households did spend \$230 more on mass transit but, overall, spent about \$4640 less per household on travel expenses.<sup>9</sup>

#### Question 4: But don't most people prefer a big house with a big yard?

##### Not when many of the "advantages" are gone.

Bay Area suburbs no longer offer many of the benefits that originally lured people to them. One recent poll found that "Fed up with the daily traffic nightmare, three out five Bay Area residents now say it's time to let go of the California dream of a big house on a large suburban lot. Given a choice between houses that cost the same, 60 percent would opt for a smaller home closer to where they work, rather than a large one farther away."<sup>10</sup>

Many people moved to the suburbs because of perceived greater safety, especially for children. However, the auto-dependency of suburban life combined with the fact that cars are so dangerous for children, have led auto accidents to become the leading cause of child injury death in the nation, exceeding even guns.<sup>11</sup>



Many zoning ordinances actually *prohibit* anything but sprawl, so sprawl is what gets built.

Local ordinances, not individual choices, often dictate the design of communities. It can take years for a developer who is trying to support infill development or pedestrian-friendly street designs to get the necessary variances.

Moreover, banks prefer to finance cookie-cutter developments, and the building industry lobbies against any change in the status quo.

Convenience and sense of community *are* highly valued.

Many people show a preference for higher densities (notably row houses between two and three stories high), in return for a central public park, neighborhood shops, and easy access to good transit. The increasing popularity of areas such as Rockridge in Oakland, and high demand for housing near transit shows this is true.<sup>12</sup>



*Amenities such as neighborhood parks and shops, combined with easier commutes, are making higher density housing popular again.*

Source: Calthorpe Associates

**Question 5: Isn't the shortage of affordable housing forcing people to make long commutes?**

Yes. The lack of affordable housing near job centers promotes longer commutes.

Surveys show that eight out of ten people who work in Silicon Valley can't afford the average home price of nearly \$315,000.

Many of these people said they would consider living in a smaller, transit-based home if it were closer to work.<sup>13</sup>

### But we can remedy this with more compact growth and infill.

A study of the Bay Area found that we can house the projected population growth of the Bay Area, with better access to transit and jobs, by following strategies such as using vacant land more effectively, adding secondary units on some existing home sites, and bringing more homes and people to existing downtowns.<sup>14</sup>

### **Question 6: Does Infill development overcrowd existing neighborhoods?**

#### Manhattan-style density isn't needed.

High-rise development may be appropriate for a few locations, but it isn't needed to meet housing demand or improve transit. Simply encouraging new housing at densities that match that of many traditional neighborhoods (8-15 units an acre, rather than the now-typical 3-4 units an acre) would make a significant difference in our ability to meet housing needs. In many cases, this can be accomplished without significantly changing the character of a neighborhood, by allowing second units or "granny flats".

#### Infill can help revitalize areas.

Many projected housing needs can be met by transforming vacant, underutilized, or blighted locations into areas with a mix of uses such as shops, small offices and housing in 2- 4 story buildings.

#### Like any development, infill must be done thoughtfully.

The design of infill projects should be sensitive to the character of the community. For example, some on-street parking problems have been successfully addressed by allowing only residents of those areas to park for extended periods.



### **Question 7: Could we afford to provide enough public transit to serve compact development?**

#### There is currently excess transit capacity.

If infill development is located along existing transit lines, it can take advantage of excess capacity that exists in many areas. As an example, each bus in Lisbon, Portugal, on average carries at least four times more passengers per day than buses in the Bay Area.

#### Transit becomes more efficient with compact development.

The cost per rider goes down as more people use transit. Compact development creates a positive cycle: more people live near and use transit, allowing service to be more frequent and for more of the day and night, which in turn makes it convenient for an even greater number of people.

#### We could also choose to fund transit services that deliver more riders for the dollar.

Some transit projects are not as cost-effective as others. For example, the proposed Warm Springs BART extension (on the Fremont line) would require a subsidy per new transit passenger, per ride, of over \$70. That's more than \$140 per round trip. Express buses could carry the same number of people at one eighth the cost, saving taxpayers millions of dollars each year.<sup>15</sup>

### **Question 8: Doesn't moving jobs to suburban office parks make commuting easier?**

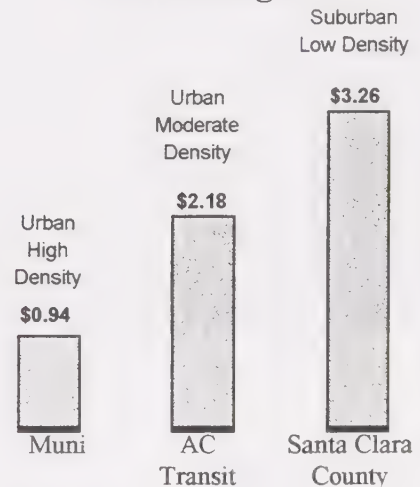
#### In many ways it has made it more difficult.

On average, commutes have not gotten any quicker even with jobs moving to the suburbs. Since most employees in suburban office parks commute with automobiles, congestion in these areas has become intense. (See figure 2-3).

#### And job options for many people have been reduced, especially those who rely on transit.

The lack of transit accessibility to many suburban jobs means these jobs aren't available to people who are not willing or able

### **Transit Subsidy Per Passenger**

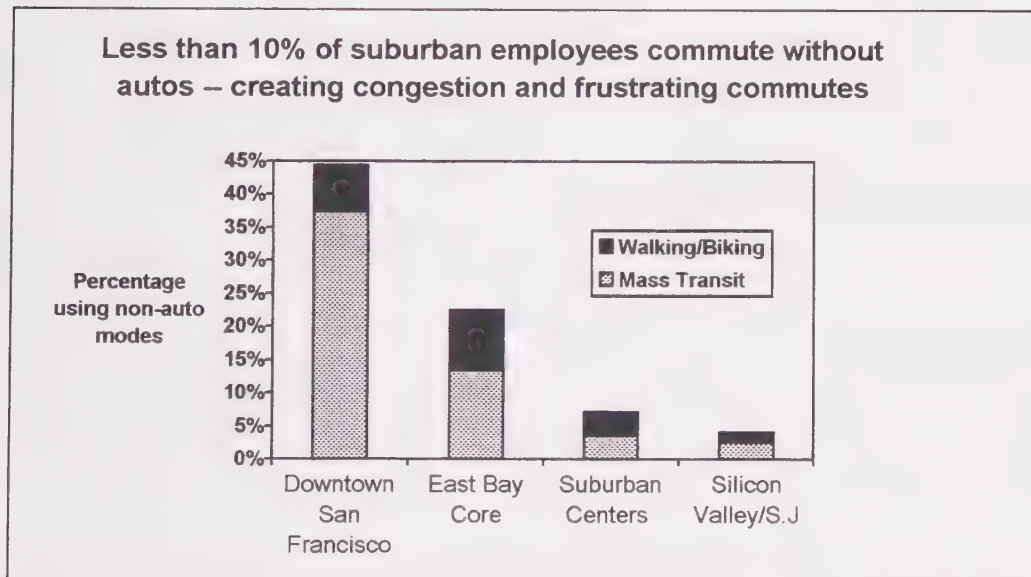


**Figure 2-2. Transit More Efficiently Serves Compact Areas.** (1993 bus subsidies source: Section 15 reports as analyzed by AC Transit)

to endure long and expensive commutes. Those who must rely on public transit, especially low-income workers and welfare recipients seeking employment, are especially hard hit.

This can be improved by reducing job sprawl.

Job sprawl has been encouraged by subsidized transportation combined with lower land and labor costs outside the urban core. If transportation dollars were more focused on areas that are accessible by all forms of transportation, businesses would have more reason to locate in these areas, helping to reduce job sprawl.



**Figure 2-3.** From Robert Cervero, *Subcentering and Commuting: Evidence from the San Francisco Bay Area, 1980-1990*.

**Question 9: Aren't HOV (carpool) lanes an environmentally friendly solution to congestion?**

Not usually.

Building a new HOV lane expands highway capacity, thereby encouraging even more people to drive. People who were already carpooling move to the HOV lane, allowing room for additional single occupant vehicles. In certain situations the added capacity has actually reduced carpooling and transit use.<sup>16</sup> In any case, most HOV lanes are only reserved for carpools for a few hours each day, so for 20-23 hours every day these are not special lanes at all.<sup>17</sup>



In fact, HOV lanes need congestion to work properly.

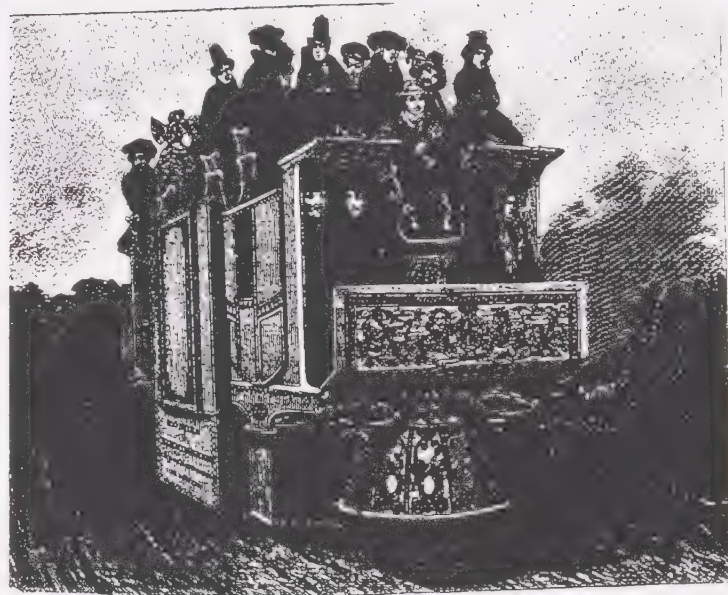
HOV lanes only encourage ridesharing when the regular lanes are heavily congested. Without congestion, HOV lanes don't serve their stated function of promoting carpooling.<sup>18</sup>

Many people drive to their carpool, eliminating many of the potential benefits.

The worst emissions from cars occur as the car is warming up (the "cold start"). Thus, driving to a "park and ride" contributes significantly to air pollution and adds to congestion on local roads.

Converting existing lanes to HOV lanes can be an inexpensive, effective way to increase capacity.

Improving an existing lane by turning it into a commute hour HOV/bus lane would encourage ridesharing and increase the capacity of existing roads at low cost, especially if combined with other incentives such as preferred parking for carpoolers and employee transit passes. However, Caltrans will only build new HOV lanes and never "take-a-lane" to make an HOV lane. This policy is based on a single experiment that received a negative reaction 21 years ago in Los Angeles.<sup>19</sup>



*An Early High-Occupancy Vehicle*

**Question 10: What do cars have to do with water pollution?**

Cars are a major source of water pollution.

Water runoff from streets and highways is a major source of pollution. Cars are responsible for up to 70% of the deadly toxics that wash into our streams and the Bay. The sources of these pollutants include:

- Engines that leak oil, grease, antifreeze and other toxics.
- Brakes that release asbestos and heavy metals such as lead.
- Tires that wear out, releasing rubber and zinc.<sup>20</sup>

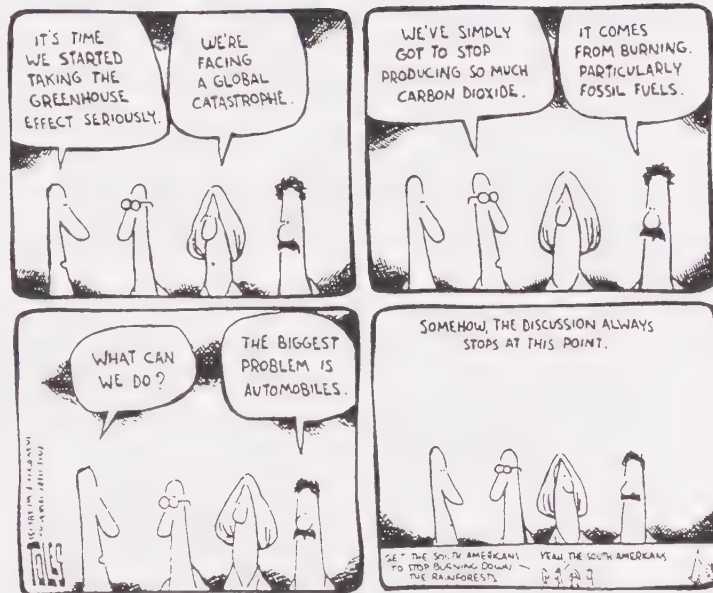
## Question 11: Won't new cars help clean the air?

### Cars are still the largest source of many air pollutants.

New cars are cleaner, but Bay Area residents now drive over 120 million miles every day – a distance greater than seven round trips to the sun. Each year we drive more, negating many of the advances in engine design. Cars and trucks in the region emit over 75% of the carbon monoxide and over 50% of the nitrogen oxide that are released into our air.

### Motor vehicles remain a major source of global warming gases.

Predicted effects of large scale climate change include loss of agricultural and forestry production and large-scale damage from flooding and drought. All told, the transportation sector produces 1/3 of U.S. carbon dioxide emissions, the primary global warming gas.<sup>21</sup>



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## Question 12: How much of our open space and hillsides could we save through more compact development and more efficient transportation?

### We could save at least 30,000 acres over 20 years.

Drawing a greenbelt line close to the current urban fringe, and building within that line at densities that are similar to the current average density of the Bay Area, could save 30,000 acres of open space over the next 20 years. This would reduce open space lost to sprawl by an area larger than San Francisco and help retain farmland, natural resources, and our overall quality of life. It would also help focus effort on revitalizing the urban core.

### And save money and make better use of our infrastructure at the same time.

Taxpayer supported services can usually be provided more efficiently to compact development than to sprawling development. For example, San Jose expects they can save taxpayers over \$2 million per year by focusing development where infrastructure already exists, and not having to arrange fire, police and road service for new suburbs. There are also



savings, such as lower water hook-up fees, that accrue directly to residents of compact development.<sup>22</sup>

**Question 13: Are there examples we can learn from?**

**Certainly. We can start right here in the Bay Area.**

There are many examples of walkable, transit-friendly, mixed-use neighborhoods in the Bay Area, such as Oakland's Rockridge, downtown Santa Rosa, downtown Mountain View and Palo Alto's University Avenue neighborhood. In addition, over the last few years, compact residential projects have been built near South Bay light rail lines.

**Oregon is filled with good examples.**

Oregon has adopted a goal of no per capita increase in vehicle travel over ten years, and a reduction of ten percent in per capita vehicle travel over twenty years. To realize this goal the State promotes urban growth boundaries and provides technical assistance to municipalities. In Portland, the urban growth boundary combined with high quality regional planning is saving the countryside and stimulating new growth around transit stations.

## ENDNOTES

- <sup>1</sup> In particular, I-880 was expected to need 24 lanes to maintain the level of service that existed in the mid-1980's. Additional lane tables are available in San Francisco Examiner, October 6, 1987.
- <sup>2</sup> For a comprehensive analysis see the Surface Transportation Policy Project's *Potholes and Politics*. The report is available on-line at <http://ewg.org>
- <sup>3</sup> Quote by Steve Heminger, manager of legislation and public affairs for MTC. As quoted in San Francisco Chronicle, "The Cypress Returns," July 21, 1997.
- <sup>4</sup> Cervero, Robert and Radisch, Carolyn, *Travel Choices in Pedestrian Versus Automobile Oriented Neighborhoods*, Working Paper 281, The University of California Transportation Center, July 1995.
- <sup>5</sup> U.S. Department of Transportation, *National Personal Transportation Survey*, September, 1997.
- <sup>6</sup> In 1996, there were 4,405,600 outstanding licenses and 6,454,400 residents. Information was tabulated by MTC and is available on their web-site at <http://www.mtc.dst.ca.us/Drivlic.htm>
- <sup>7</sup> According to the 1990 MTC Travel Survey, Working Paper #4 (p. 56), approximately 227,267 households, representing a household population of 416,455 had no vehicles regularly available for their use.
- <sup>8</sup> These results were originally reported in Chuck Purvis, Miguel Iglesias, Ron West, and Lisa Klein, *Year 2010 Travel Demand Forecasts; Regional Alliance for Transit (RAFT): Land Use/Transportation Scenario; Technical Summary*, MTC April 1994. A good summary of this "RAFT Run" is available from Sherman Lewis of RAFT, or by calling the Bay Area Transportation Choices Forum.
- <sup>9</sup> Chart taken from: John Holtzclaw, *Using Residential Patterns and Transit To Decrease Auto Dependence and Costs*, Natural Resources Defense Council, June 1994. Cost of auto and transit ownership were extrapolated using average costs of \$2,203 per auto, and 12.7 cents per mile of auto use based on, *Cost of Owning and Operating Automobiles, Vans and Light Trucks, 1991*, Federal Highway Administration.
- <sup>10</sup> San Francisco Chronicle, March 18, 1997
- <sup>11</sup> National Center for Health Statistics, 1995 survey, as reported by SF Chronicle, July 25, 1997.
- <sup>12</sup> SF Chronicle, "Traffic Drives Homebuyers Close to Transit Lines," March 24, 1997.
- <sup>13</sup> SF Chronicle, "Traffic Drives Homebuyers Close to Transit Lines," March 24, 1997.
- <sup>14</sup> *Room Enough: Housing and Open Space in the Bay Area* Greenbelt Alliance (People for Open Space). December 1983.
- <sup>15</sup> *Fremont-South Bay Corridor Final Report*. Prepared For MTC by DKS Associates, May 24, 1994.
- <sup>16</sup> Building a new HOV lane creates a situation where all of the previous highway lanes are now dedicated to single occupant vehicles. This reduces congestion (at least temporarily) and increases speeds for single-occupant vehicles. These higher speeds make single- occupant vehicles more attractive than before. *Effects of Land Use Intensification and Auto Pricing Policies on Regional Travel, Emissions and Fuel Use*, Robert Johnston and Raju Ceerla, 1995.
- <sup>17</sup> There is a one hour per day HOV on Interstate 580, between the Richmond-San Rafael Bridge and Interstate 80.
- <sup>18</sup> Joy Dahlgren, *Are HOV Lanes Really Better?* Access, No. 6, Spring 1995, pp. 25-29. Specifically, she found no benefit from HOV lanes unless there were significant delays.
- <sup>19</sup> San Jose Mercury News, "Clean Air Board Suspects Carpooling is a Flop" October 18, 1997.
- <sup>20</sup> Mayer, Jim, *Changing the Course of California's Water*, A Lindsay Museum Publication, 1995.
- <sup>21</sup> In the Bay Area approximately 100,000,000 pounds of carbon dioxide are released into the air by motor vehicles every day. Each gallon of gas that is used produces 19 pounds of carbon dioxide.
- <sup>22</sup> Economic and Planning Systems Inc., *San Jose 2020 General Plan Update: Fiscal Impact Analysis*, April 1993. Other studies in Maryland and New Jersey have shown even greater savings for residents.



## Chapter Three: The Pieces of the Regional Transportation Puzzle

### ***What is the Regional Transportation Plan?***

**T**he Regional Transportation Plan (RTP), “updated” by MTC every 2 years, is supposed to define a 20-year vision for the Bay Area. Using projections for employment, population growth and other demographics developed by the Association of Bay Area Governments (ABAG), the RTP proposes transportation investments and services for the entire Bay Area.

Numerous agencies and plans influence the RTP. The chart on the following page shows many of the major inputs.

#### **The Original \$74 billion: Prior Commitments and Track 1**

Of the \$74 billion in transportation funding that is expected to flow to the Bay Area over the next twenty years, the RTP assumes that \$70 billion or about 95 percent, is “baseline investments” or “prior commitments” that cannot be changed. This includes ongoing operations and maintenance, and previously approved highway expansions, rail extensions and other improvements to the system.

As long as these prior commitments are considered sacrosanct, only about 5 percent of the region’s transportation dollars can be used flexibly within the RTP. This 5 percent – about \$4 billion – is known as Track 1. When the RTP is updated alternative spending proposals are required, however, since only 5% of the funding is considered flexible (“track 1”) these alternatives have not been significantly different from each other.

#### **The Sequel: \$16 billion and Track 2**

While the \$74 billion in already-identified RTP funds is a lot of money by any standard, it is insufficient to meet the region’s needs using current spending priorities and assumptions. State laws have also changed substantially since the last major revision of the RTP in 1994, and changes in federal law are expected.

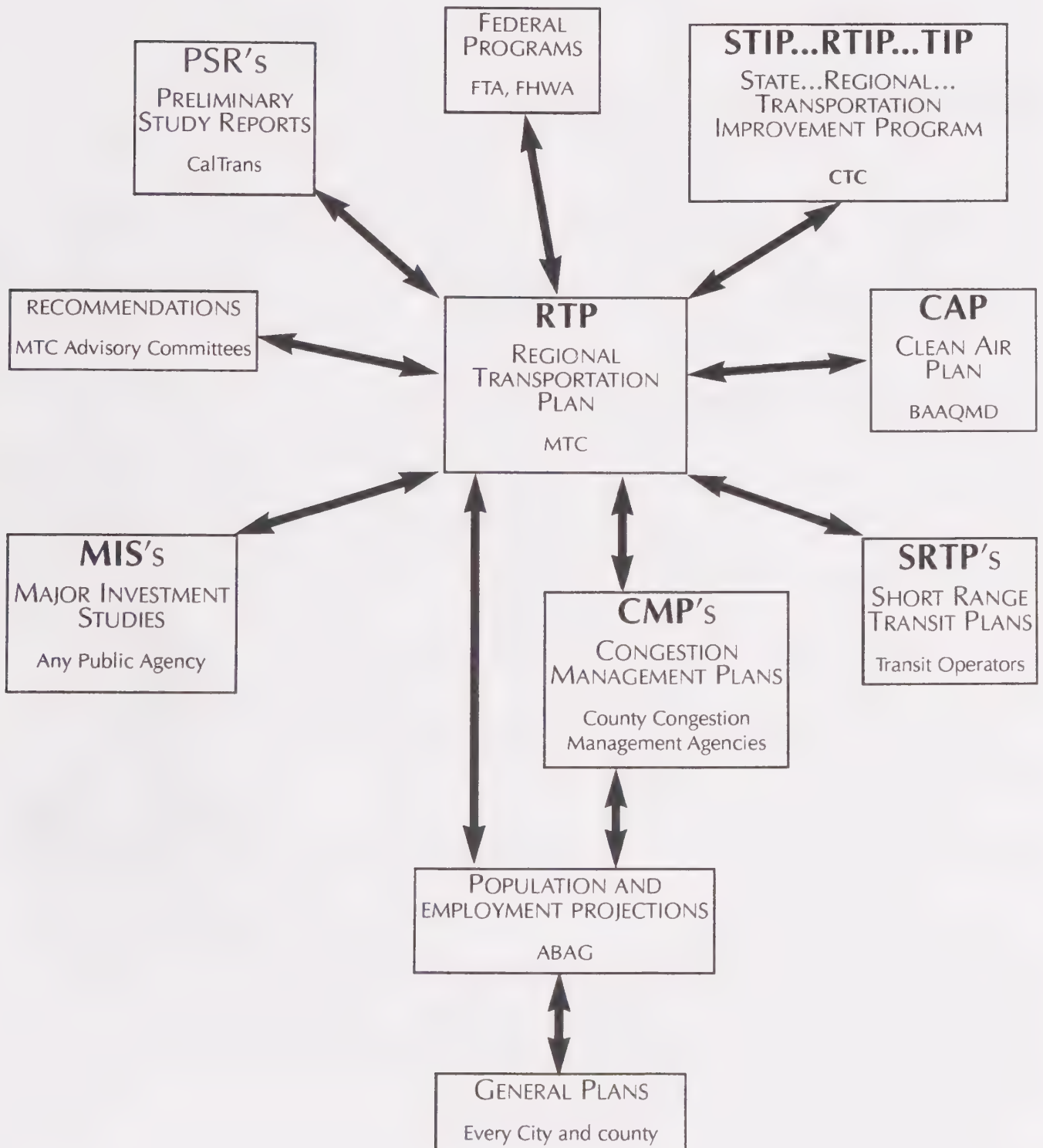
The RTP feeds into the STIP and TIP with BAAQMD’s CAP as a...



**An acronym by any other name (please refer to the glossary in the back for definitions).**

# THE PAPER TRAIL

PLANS AND REPORTS THAT AFFECT THE REGIONAL TRANSPORTATION PLAN





As a result, MTC is planning a comprehensive update of the RTP in 1998. So far, the largest expected change in the RTP will be the addition of a plan for how to raise and spend upwards of \$16 billion in new taxes. This money may be raised through a combination of a new regional gasoline tax and new or extended county sales taxes. MTC's proposal for how to use these new revenues is referred to as "Track 2".

## Back to Basics

### What is MTC and What Do They Do?

The Metropolitan Transportation Commission, or MTC for short, was created by the California Legislature in 1970 to plan the transportation network for the nine Bay Area counties. Directed by a policy board of 19 commissioners, MTC has a staff of over 100 and an annual operating budget of \$14 million. Offices are located in the Joseph P. Bort MetroCenter in Oakland, at 101 Eighth Street, adjacent to the Lake Merritt BART station.<sup>1</sup>

MTC has three basic functions:

#### *Planning*

New transportation projects in the region must be included in MTC's Regional Transportation Plan to be eligible for funding through the regional process.

#### *Funding*

The Commission votes to allocate nearly \$1 billion every year in funding to mass transit, local streets and roads, highways, freight facilities and bicycle and pedestrian routes in the region.<sup>2</sup>

#### *Advocacy*

MTC promotes their position on Bay Area interests to the state and federal governments, and brokers agreements between local agencies.

*MTC public discussion, recommendations and decisions are made at monthly commission and committee meetings. **Most substantive debate occurs at the committee level.** Key standing committees include: Grant Review & Allocations; Work Program; and Legislation & Public Affairs.*

## How are commissioners selected?

MTC has 19 members -- 16 of them voting -- selected as follows: Fourteen voting members are appointed by local elected officials. In each of the five more populous "urban" counties -- Alameda, Contra Costa, San Francisco, San Mateo and Santa Clara -- two commissioners are appointed, one by the county's council of mayors and councilmembers (in San Francisco, by the mayor) and one by the county board of supervisors. In the less populous "rural" counties -- Marin, Napa, Solano and Sonoma -- each county's council of mayors and councilmembers nominates up to three candidates to the board of supervisors, which selects one commissioner.

Two voting MTC members represent regional agencies: the Association of Bay Area Governments (ABAG) and the San Francisco Bay Conservation and Development Commission (BCDC). In addition, there are three nonvoting members. They represent the state's Business, Transportation and Housing Agency, as well as the federal Housing and Urban Development Department and the United States Department of Transportation.

All commissioners serve four-year terms and may be reappointed. The chair and vice chair, elected by voting members of MTC, serve two-year terms.

## How do transportation projects get funded?

Transportation funds are committed to projects, or "programmed," in two ways:

### Transportation Improvement Program

MTC prepares the federally required Transportation Improvement Program, or TIP, every two years. The 1995 TIP contains transportation projects worth more than \$13.5 billion. TIPs must "conform" to federal Clean Air Act requirements (meaning the projects, taken as a whole, must not worsen air quality—although the law allows individual projects to worsen air quality provided other projects offset the impact).

### State Transportation Improvement Program

To receive state funding, most projects must be included in the State Transportation Improvement Program, or STIP. Updated every two years, the STIP determines if and when projects will be funded by the

*MTC's appointment system is not fully proportional to population.*

*Santa Clara and Alameda counties have less, and the North Bay counties more, representation than would be the case if the one person-one vote principle was applied.*



state. The STIP is approved by the California Transportation Commission (CTC), which is appointed by the governor.

In the Bay Area, county-level congestion management agencies, or CMAs, set local priorities that feed into MTC's regional process. MTC then prepares a Regional Transportation Improvement Program, or RTIP, which together with other urban areas, recommends projects to the CTC for inclusion 75% of the STIP. The State Department of Transportation, or Caltrans, makes recommendations to the CTC based upon statewide priorities for the remaining 25% (covering both rural areas and urban projects with statewide significance). For Bay Area projects submitted by MTC, the CTC must either accept or reject the list of proposed projects in its entirety.

### For More Information

MTC Public Information staff (510-464-7787) are responsible for providing interested people with meeting notices, agendas, and materials that accompany agenda items. They will also place interested individuals on the mailing lists to keep updated on RTP development. Schedules are also available online at [www.mtc.dst.ca.us/mtgshed.htm](http://www.mtc.dst.ca.us/mtgshed.htm)

MTC reports, brochures and studies are available to the public through the MTC-ABAG library, as are other periodicals and publications. The library also offers free public access to the Internet for online information searches. Located on the first floor of the Metrocenter at 101 Eighth Street in downtown Oakland, the library is open 8:30 a.m. to 5 p.m., Monday through Friday (phone: 510-464-7836).

### EDNOTES:

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<sup>1</sup> Much of this section has been adapted from MTC's citizen's Guide to the Metropolitan Transportation Commission.

<sup>2</sup> The \$1 billion is money that MTC allocates directly (\$20 billion over 20 years). MTC has policy oversight of additional funds, adding up to \$74 billion over 20 years covered by the RTP. A 1997 law, SB 45, will allow MTC greater discretion in spending.





## Chapter Four: Recommendations

### Getting on Track

**W**e can create a better future for the Bay Area. Described below are principles for a transportation system that supports more efficient, equitable, and sustainable growth in the Bay Area. These include:

- ◆ Reward Smart Land Use.
- ◆ Adopt Real Performance Standards.
- ◆ Fix It First.
- ◆ Get the Most From What We Already Have.
- ◆ Use the Right Price.
- ◆ Maximize Funding Flexibility.
- ◆ Rethink Past Decisions

*"This is not a call for limiting growth, but a call for California to be smarter about how it grows – to invent ways we can create compact and efficient growth patterns that are responsive to the needs of the people at all income levels, and also help maintain California's quality of life and economic competitiveness."*

*-- From Beyond Sprawl.*

#### Reward Smart Land Use Policies

*Fund projects that promote good land use and urban design.*

Transportation problems can't be solved unless we rein in the increasing need to drive. That means designing our communities to be walkable, bikeable, and transit-oriented, with homes, shops, offices, and recreational facilities in reasonable proximity to one another.

Nationwide, states such as Maryland, Oregon and Colorado are using "smart growth" policies that meet these goals. Maryland recently enacted Smart Growth legislation that will direct all state infrastructure funding away from low-density suburban development to strengthen existing cities and towns instead. In Oregon, the state government has, for the last 20 years, required cities to adopt compact growth plans and set up urban growth boundaries.

MTC has also begun to look at strategies to support transit and pedestrian-oriented community improvement projects. These strategies, however, should do much more than promote a few demonstration projects. They should include comprehensive policies, as well as targeted investments, that encourage all communities to improve land uses, and reward those communities that follow through.

Local standards for Smart Growth policies can be adapted from ABAG's 1997 report titled "Making Better Communities by Linking Land Use and Transportation."

Additionally, the MTC's draft Regional Transportation Plan should include alternative land use scenarios that include compact development and mixed uses that offers true transportation choices.. Recent studies in the Sonoma/Marin corridor and in San Mateo County provide useful models by evaluating the tradeoffs between alternative land use scenarios and transportation investments. The Sonoma/Marin study, for example, found that compact, mixed-use development along a new commuter rail line on the old Northwest Pacific tracks met most of the corridor's transportation needs *at about half the cost* of building new HOV lanes on Highway 101, without the sprawl-inducing effects of widening the freeway. "Smart growth" scenarios such as this one can be developed throughout the Bay Area.

### Adopt Real Performance Standards

*Specific performance standards should be developed to help us meet the goals and objectives of the Regional Transportation Plan.*

The current Regional Transportation Plan identifies five important goals:

- Improve mobility,
- Promote equity,
- Enhance sensitivity to the environment,
- Support economic vitality, and
- Support community vitality.<sup>1</sup>

MTC has also developed objectives that help clarify these goals. Yet, specific performance standards that measure the region's progress towards these goals and objectives have never been developed.<sup>2</sup>

Such standards have been developed in other areas. For instance, the state of Oregon has a stated objective of reducing how many miles each person drives by an average of 20 percent by the year 2025.<sup>3</sup> Cities and towns throughout the state are working to achieve this goal, primarily by improving transit, reducing parking, expanding bike facilities, adopting urban growth boundaries, promoting mixed-use development, and generally planning for "livable, walkable communities."



## Fix It First

*Fund maintenance of existing highways and transit before funding new projects and services.*

The region's public transit systems have suffered from numerous cuts in funding and service in recent years. AC Transit, for example, cut service 11 percent in 1996, eliminating most of its night and weekend buses in order to balance its operating budget. San Francisco's MUNI is so behind in equipment and maintenance that it cannot come close to meeting its scheduled service.

Similarly, maintaining the Bay Area's existing transit services should come before expansions to new areas. This means putting all maintenance needs into Track 1 of the RTP, and deferring expansions to Track 2.

Maintenance of existing streets and roads should also be funded before expensive new highway projects are built. As MTC notes in the 1994 RTP, "It costs only \$17,000 per mile to seal the cracks in a four-lane road; but if the road is allowed to deteriorate to the point where construction is needed, repairs can cost nearly \$400,000 a mile."

## Get the Most From What We Already Have

*Make more efficient use of existing roads and transit as an alternative to constructing new infrastructure.*

Improving the efficiency of the existing system is usually less expensive and less environmentally damaging than constructing additional capacity. It also avoids the congestion that comes during the construction of new facilities. Methods for increasing efficiency include *converting* mixed-flow freeway lanes to bus/carpool use, charging the right price to use roads, improving transit connections, and developing safe, convenient bike lane networks on existing streets.

To illustrate the room for improvement, the Bay Bridge had the capacity to carry over 500,000 people each day in the 1940s with a mix of rail lines, buses and cars. It now carries only about 275,000 vehicles, most of them with just one occupant inside. By contrast, in New York, one lane in the Lincoln Tunnel is now being used as a rush hour bus-only lane. Instead of carrying 2,500 people per hour in cars (about 2,000 vehicles), the lane carries approximately 32,000 bus riders.<sup>4</sup> This type of system requires a large and well-located terminal, such as the existing Transbay Transit Terminal in San Francisco.

## Use the Right Price

*Change how we pay for transportation so that motor vehicle use is not subsidized.*

The financing for our transportation system receives numerous subsidies. It makes little sense to pay for highways through sales taxes on items like clothes or through property taxes, but that's how the system currently works. Highway construction and operation should be paid for by gasoline taxes or other "user" fees. These fees should also cover the environmental and social costs of driving.

Higher gas taxes and other fees can be made "revenue-neutral" by reducing other taxes by a similar amount and can even be designed to reduce our overall tax burden.<sup>5</sup> Pricing reform can also be used to remove many of the inequities in our transportation system, for example by reducing public subsidies to automobile users and to suburban residents who require expensive infrastructure investments.<sup>6</sup>

Similarly, everyone can share the benefits of a mechanism known as "parking cashout" in which employers offer cash or transit passes to company employees who forego employer-financed parking. Counties, local governments, the Air District and MTC can work together, and with employers, to promote cashout as a way to reduce solo driving and the need for infrastructure expansion.

## Maximize Funding Flexibility

*MTC should maximize funding flexibility in order to implement the best and most cost-effective projects.*

Many transportation funding sources have restrictions on their use. Other funds may be flexible in their use, but are earmarked for particular agencies. As a result, the most cost-effective project(s) for a specific need may not be eligible for funding. By more creatively pooling funds across agencies, MTC could allow a wider range of projects to be evaluated on "equal ground," ensuring that the best projects get funded.

The 1991 federal Intermodal Surface Transportation Efficiency Act (ISTEA) began the process of increasing the flexibility of transportation funds. But much greater regional flexibility is needed. MTC should continue and expand its advocacy efforts at the local, state and federal levels for a greater ability to shift funds to whatever projects or initiatives are in the region's long-term interest.



## Rethink Past Decisions

*The RTP should reevaluate decisions from the past to ensure that our investments meet current goals and objectives.*

In the last Regional Transportation Plan an amazing 95 percent of funds available over the 20 year planning period were defined as “baseline investments” or “prior commitments”. Thus, alternative spending proposals only varied by the 5% that were kept flexible.

Yet the region’s needs, resources, information and technologies change over time. New alternatives may fulfill the area’s pressing goals of reducing congestion and pollution better than plans that were developed years ago.

Projects in planning, design and engineering phases should be periodically re-evaluated to see whether completion of the projects is still justified or whether funds could be more effectively spent in other ways. Those projects which increase suburban sprawl or automobile use should be particularly questioned, and such funds reallocated to enhance better land use planning and alternatives to driving.

## **It is Time to Break the Cycle of Sprawl**

The sprawl that is spreading throughout our region, state and country relies on taxpayer money for infrastructure such as roads and water systems. Many Bay Area residents, elected officials and media are now speaking out against the problems that sprawl creates. Yet there always seems to be just one last highway to expand, one new road to build, before we try smarter growth. Limited public financial resources should be focused on solutions that get us closer to what we aspire to, not what we are resigned to.

The recommendations listed in this chapter are relevant for transportation decisions made at every level of government. Fortunately, we are seeing some progress on these issues, much of it in reaction to residents that have become more educated and involved. Here in the Bay Area we still have the opportunity to help shape our region as we approach the next millennium; a key opportunity now before us is the 1998 update of the Regional Transportation Plan.

## Points for Public Involvement in the RTP

The latest schedule calls for adoption of the RTP update and Track 2 in September 1998. Opportunities for public involvement in shaping the 1998 RTP include:

- Ongoing -- Monthly meetings of the MTC work Program Committee, which is responsible for preparation of the RTP. Also, the public can comment on MTC's Track 2 discussion document at any time.
- Spring -- County Outreach Meetings will be held.
- Summer -- Written and Oral comments on the draft RTP and Track 2, and the companion Environmental Impact Report.
- Late Summer -- Formal public hearings on these documents.

For more information you please call the Bay Area Transportation Choices Forum at (510)843-3878.

## ENDNOTES

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<sup>1</sup> Metropolitan Transportation Commission, *1994 Regional Transportation Plan*, Oakland CA, page 6.

<sup>2</sup> Except where required by law, as in the case of criterion air pollutants.

<sup>3</sup> Known as the Transportation Planning Rule (TPR), this goal was established in 1991 by the Oregon Land Conservation and Development Commission and can be enforced through administrative procedures.

<sup>4</sup> From *Traffic Engineers Handbook*.

<sup>55</sup> Billions of dollars of sales taxes and general fund revenues are used to expand a system that is being used very inefficiently. More efficient use of transportation infrastructure could reduce the need for expansion and allow a commensurate reduction in taxes.

<sup>6</sup> Currently, our transportation system is rife with inequities, both in how revenues are generated (such as sales taxes) and how they are spent (higher per capita subsidies for suburban travel ). There are many possibilities for improving transportation equity with market mechanisms.



## Appendix and Glossary

### Yes, But What About...

Many of the recommendations in chapter 4 raise important questions regarding political or practical feasibility. This section responds to common queries on these issues.

#### Recommendation: Reward Smart Land Use

**Question:** But MTC doesn't have land use powers and it seems cities don't want a regional agency taking away local control?

**Answer:** Yes, MTC does not have the authority to dictate local land use decisions. But they should ensure that public money is invested where and how it will do the most good. Encouraging supportive land use policies is clearly a good investment, and MTC has acknowledged this by adopting a land use policy. Now, the challenge is to implement this land use policy in a way that effectively encourages jurisdictions or subregions (depending on the type of investment) to create more sustainable communities.

#### Recommendation: Rethink Past Decisions

**Question:** But shouldn't prior commitments to projects be honored?

**Answer:** It is essential to keep the faith of the public, and MTC has pointed to that as one of the main reasons not to question prior commitments. But the faith of the public can be severely damaged when public money is spent on projects that no longer make sense.

Just as successful businesses continually evaluate the full range of their investment options, so too should government agencies. Decisions to proceed with a project should not be guided by how much time and money have already been spent. The real question is whether the expected benefits justify the remaining time and money necessary to complete, operate and maintain the project.

#### Recommendation: Maximize Funding Flexibility

**Question:** But doesn't most funding for capital projects have restrictions so it can't be used for operating expenses?

**Answer:** Yes, numerous restrictions exist, but they are not insurmountable. For example, BART is using its local sales tax dollars - which can be used for capital *or* operating expenses -- on capital

projects. Regionally allocated funds, which by state or federal law are restricted to capital expenses, could be swapped with BART's flexible funds. This type of swapping would remove the "capital-only" restrictions and allow the region to spend money where it makes the most sense.

The issue is not the state and federal funding restrictions that say money can only be spent on capital projects. It is really one of regional priorities. Do we first maintain what we already have? Or do we focus on new projects, even at the expense of the existing system?

### Recommendation: Use the Right Price.

**Question:** But will people support higher gas taxes or accept new ideas such as congestion pricing or emission fees?

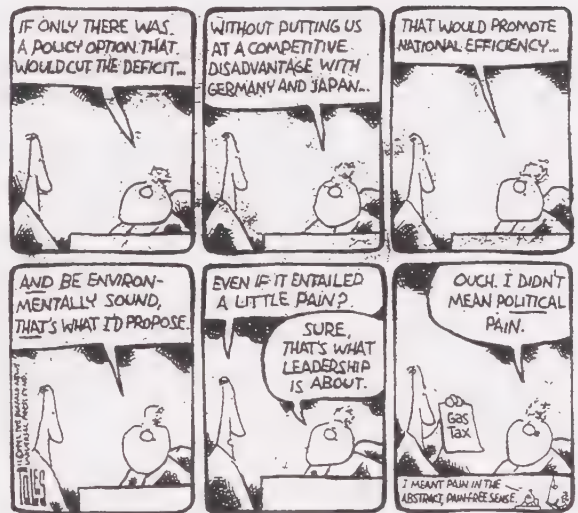
**Answer:** The purpose of pricing reform is to use tax dollars more efficiently, not raise new taxes. By using private enterprise concepts in transportation, such as paying higher prices during periods of peak demand (as with phone calls or airline tickets), we could all partake in a system that works more efficiently and fairly.

### Recommendation: Fix It First

**Question:** But isn't maintenance already a priority?

**Answer:** Yes, but the backlog of deferred maintenance is still large, and many maintenance needs (such as filling potholes in local streets and roads) are proposed for "Track 2" funding which does not yet exist, even while expensive capacity expansion projects are slated for real "Track 1" dollars.

Furthermore, when evaluating whether to make new investments, priority should be given to projects that reduce future maintenance costs, rather than those that will increase those costs. For example, wider highways and new transit services create more operating and maintenance costs. By contrast, many improvements to existing services and infrastructure can reduce costs and create a system that works better for the long run. These include the timely paving of streets and providing sufficient funds for proper maintenance of transit vehicles.



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## The Role of Cities and Counties

Some Bay Area cities and counties are using their land use powers to promote a more sustainable future. Yet their goals will not be fully realized unless neighboring localities do the same. Issues such as congestion and air quality do not respect jurisdictional boundaries.

For change to happen there needs to be greater regional support for sustainable policies at the local level. Local governments must call on MTC to reward those jurisdictions that reduce demands on the Metropolitan Transportation System. Jurisdictions that adopt supportive land use policies should receive first priority for transportation fund allocations. Local land use policies that deserve to be supported are described below.

### Urban Growth Boundaries and Compact Development

- Urban Growth Boundaries (UGBs), outside of which development is not permitted, create a defining line between our communities and our open spaces and farmlands. In the last two years, UGBs have been established in the Bay Area cities of Sebastopol, Healdsburg, Santa Rosa, Novato, and Rohnert Park, and a UGB was reaffirmed around San Jose. Regional transportation dollars should reward these and other cities that rein in sprawl.
- Compact development must complement Urban Growth Boundaries so that development is not displaced to more distant areas such as the San Joaquin Valley.
- Minimum housing densities should be established. Sprawl could be dramatically reduced if new construction were built at current average densities. Higher densities should be established near transit and urban centers.<sup>i</sup>

### Pedestrian and Transit-Friendly Development

- Road patterns in new development should emphasize “connectivity” -- networks of streets that interconnect, reducing travel distance for residents and making walking and bicycling easier. The recent pattern of arterials and cul-de-sacs should be avoided, as this leads to “suburban gridlock”<sup>iii</sup>. Access by non-auto modes should be *at least as good* as for automobiles.
- Sidewalks should be provided in all new development.
- Retail and commercial spaces should be clustered close to transit stations or stops.



- Parking lots should be placed in the rear of buildings and parking space requirements reduced.
- Developments should provide a mix of uses, including residences, commercial areas and parks. Putting homes, jobs, shops, and recreational facilities near each other reduces driving and allows people to combine trips.

For more information see ABAG's *Making Better Communities by Linking Land Use and Transportation* (call 510-464-7900). Also, the Greenbelt Alliance has a new guide for Using Urban Growth boundaries to improve communities titled *Bound for Success* (call 415-543-4291).

## GLOSSARY OF TRANSPORTATION LINGO

### ABAG -- Association of Bay Area Governments:

A voluntary association of counties and cities, ABAG provides demographic, financial, administrative, training and conference services to local governments and businesses in the Bay Area. One member of ABAG sits on MTC.

### ADA -- Americans with Disabilities Act:

Federal civil rights legislation, passed in 1990, for persons with disabilities. The ADA requires public transit systems to make their services more fully accessible, and provide a parallel network of paratransit service for those who because of their disability cannot use regular transit services.

### BAAQMD -- Bay Area Air Quality Management District:

Also known as the Air District, since the acronym is harder to say than the full name, the BAAQMD regulates industry, and sponsors programs to clean the air. The Air District works with MTC and the Association of Bay Area Governments on issues that affect transportation, land use and air quality.

### BCDC -- San Francisco Bay Conservation and Development Commission:

A regional agency with jurisdiction over filling and dredging of San Francisco Bay and development within 100 feet of the Bay. One representative sits on MTC.

This glossary is an abbreviated version of the glossary in *Citizen's Guide to the Metropolitan Transportation Commission*

### CAA -- Clean Air Act:

Federal legislation that requires each state with areas that have not met federal air quality standards to prepare a State Implementation Plan, or SIP. The California Clean Air Act (or CCAA) sets state goals, which are generally tougher than the federal standards.

### Caltrans -- California Department of Transportation:

The state agency that operates California's highway and intercity rail systems.

### Capital funds:

Monies dedicated to one-time costs, such as construction of roads, transit lines and facilities or purchase of buses and rail cars.

### CMA -- Congestion Management Agency:

A countywide agency responsible for preparing and implementing that county's Congestion Management Program. CMAs came into existence as a result of Prop. 111 in 1990. Each of the nine Bay Area counties have one.

### CMAQ -- Congestion Mitigation and Air Quality Improvement Program:

A pot of federal money for projects and activities that are intended to reduce congestion and improve air quality in regions not yet attaining federal air quality standards.

### CMP -- Congestion Management Program:

Required of every county in California with a population of 50,000 or more (including all Bay Area counties) in order to qualify for certain state and federal funds, CMPs are prepared by Congestion Management Agencies. Updated biennially, CMPs set performance standards for roads and public transit, and show how local jurisdictions will attempt to meet those standards. CMPs identify the projects that MTC is required to consider in the development of the STIP.

### Conformity

A process in which transportation plans and spending programs are reviewed to ensure they are consistent with federal clean air requirements; transportation projects collectively must not worsen air quality.

### CTC -- California Transportation Commission:

A state-level commission that sets state spending priorities for highways and transit and allocates funds. Its nine members are appointed by the governor.

### Flexible Funding

Unlike funding that flows only to highways or only to transit by a rigid formula, this is money that can be invested on a range of transportation projects. Examples of flexible funding programs include the Surface Transportation Program and Congestion Mitigation and Air Quality. (Although they can be used for different modes of travel, many of the "flexible" funding programs are still targeted for capital purposes.)

### HOV Lane -- High-Occupancy-Vehicle Lane:

The technical term for a carpool lane, commuter lane or diamond lane.

### Intermodal

The term "mode" refers to the various forms of transportation, such as automobile, bus, ship, bicycle and walking. Intermodal refers specifically to the connections between modes.

### ISTEA -- Intermodal Surface Transportation Efficiency Act:

Pronounced "Ice Tea," this 1991 Act directs federal transportation policy and how federal funds will be spent. ISTEA emphasizes diversity and balance of modes, as well as the preservation of existing systems before construction of new facilities. Congress is expected to adopt a successor program to ISTEA in 1998.

### MPO -- Metropolitan Planning Organization:

A federally required body responsible for transportation planning and project selection in its region; the governor designates an MPO in every urbanized area with a population over 50,000 people. MTC is the Bay Area's MPO.

### MTC -- Metropolitan Transportation Commission:

The transportation planning, financing and coordinating agency for the nine counties that touch San Francisco Bay.

### Multimodal:

Refers to the availability of multiple transportation options, especially within a system or corridor. A concept embraced in ISTEA, a multimodal approach to transportation planning focuses on the most efficient way of getting people or goods from place to place, be it by truck, train, bicycle, automobile, airplane, bus, boat, foot or even a computer modem.



### Operating revenues:

Monies used to fund general, day-to-day costs of running transportation systems. For transit, costs include fuel, salaries and replacement parts; for roads, operating costs involve maintaining pavement, filling potholes, paying workers' salaries, and so forth.

### RTIP -- Regional Transportation Improvement Program:

A listing of highway and transit projects for which the region hopes to capture funds; compiled by MTC every two years from priority lists submitted by local jurisdictions.

### RTP -- Regional Transportation Plan:

A blueprint to guide the region's transportation development for a 20-year period. Updated every two years, it is based on projections of growth developed by ABAG and travel demand, coupled with financial projections. Required by state and federal law.

### SIP -- State Implementation Plan:

This one term refers to two different but related documents. Metropolitan areas prepare regional SIPs showing steps they plan to take to meet federal air quality standards. Several SIPs make up the statewide plan for cleaning up the air, also known as a SIP.

### SOV -- Single-occupant vehicle:

A vehicle with one occupant, the driver.

### STA -- State Transit Assistance:

Provides funding for mass transit operations and capital projects.

### STIP -- State Transportation Improvement Program:

The plan adopted by the state CTC indicating where and when the state will fund transportation projects. Originally a seven year plan (with 2-year updates), the current STIP was recently made a six-year plan, and after the year 2005 will become a four-year plan.

### STP -- Surface Transportation Program:

One of the key funding programs in ISTEA. STP monies are "flexible," meaning they can be spent on mass transit, pedestrian and bicycle facilities as well as on roads and highways.

### TCM -- Transportation Control Measure:

A strategy to reduce driving or smooth traffic flows in order to cut auto emissions and resulting air pollution. Required by the Clean Air Act, TCMs for the Bay Area are jointly developed by MTC and the Bay Area

Air Quality Management District. Examples of TCMs include new or increased transit service and programs to promote carpools and vanpools.

#### TDA -- Transportation Development Act:

A state law enacted in 1971, which allocates a tax of one-quarter of one percent on all retail sales in each county; to be used for transit, special transit for seniors and people with disabilities, and bicycle and pedestrian purposes. In rural counties, TDA funds may be used for streets and roads under certain conditions.

#### TDM -- Transportation Demand Management:

Ways to reduce demand by automobiles on the transportation system, such as programs to promote telecommuting, flextime and ridesharing.

#### TEA -- Transportation Enhancement Activities:

An ISTEA-created funding category. Ten percent of STP monies must be set aside for projects that provide transportation-related amenities. Examples of TEA projects include bicycle and pedestrian paths, restoration of historic transportation facilities, acquisition of scenic or open space lands next to travel corridors, and public art projects.

#### TIP -- Transportation Improvement Program:

The primary spending plan for federal funding for transportation projects of all types. MTC prepares the TIP biennially. Depending upon the funding source, it covers a three- to seven-year period.

#### U.S. DOT -- United States Department of Transportation:

The federal cabinet-level agency with responsibility for highways, mass transit, aviation and ports; headed by the secretary of transportation. The DOT includes the Federal Highway Administration (FHA) and the Federal Transit Administration (FTA), among others. There are also state DOTs (California's is known as Caltrans).

#### VMT -- Vehicle Miles Traveled:

A measure of how many car miles of travel take place. VMT per capita is the measure of how much each person drives. Reducing VMT can help ease traffic congestion and improve air quality.

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<sup>i</sup> Current average density is over eight residential units per acre, but new development averages around five units per acre. Around transit nodes densities of thirty units per acre have been recommended by numerous professionals.

<sup>ii</sup> Cervero, Robert, *Suburban Gridlock*, Center for Urban Policy Research, Piscataway NJ, 1986.

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